TIME	NAME	DIALOGUE
00:00	Dr. Laura Fernadez Celemin	Welcome to this webinar that will provide an overview of what the EC-funded project FLABEL (Food Labelling to Advance Better Education for Life) - which will end at the end of January 2012 - has achieved throughout its 3½ years. My name is Dr. Laura Fernández Celemín, Co-ordinator of FLABEL, and on behalf of the FLABEL Consortium I am delighted that you can join us. I will start by briefly introducing the project and then Professor Klaus Grunert from Aarhus University in Denmark, who is the Scientific Advisor for the project, will present the main results and conclusions. At the time FLABEL began, there was ongoing discussion about the ways in which nutrition labelling could be improved which resulted in considerable research activity. However, we were lacking evidence on whether nutrition labels had a certain effect on food choices, how strong this effect is and which factors are responsible for it occurring. On this background, the overall objectives of this small collaborative project are to determine how nutrition information on food labels can affect dietary choices, consumer habits and ultimately food-related health issues through the use of an interpretation framework that incorporates both the label and other factors and influences and also to provide the scientific basis and use of nutrition information on food labels including scientific principles for assessing the impact of different food labelling schemes to be shared with the different stakeholders. Our consortium is made up of thirteen partners from eight countries ranging from academic experts specialised in Psychology, Nutrition, Economics and Marketing, retailers, small and medium-sized enterprise representatives to not-for-profit organisations making us well-placed to provide state-of-the-art science on how nutrition labels affect consumer behaviour through the application of a multi-disciplinary approach. The current slide shows the conceptual framework developed to explain the effects of nutrition information on food labels on consumer food choice. Only nutrition labels to which the consumer is exposed can be expected to have an effect. The likelihood of exposure is increased if the consumer actively searches for the information. Exposure will only have an effect if the information is perceived by the consumer and any effect on purchase decisions will depend on consumers understanding of the nutrition information on the label. However, consumer choices may also be affected by the liking for a particular label. Finally, the nutrition label may be used in making choices and that can impact the overall pattern of shopping and that way affect consumers' dietary intake. All those processes are influenced by environmental, personal and product- or label-related factors and it is the interplay of these factors that will determine whether and how nutrition labelling affects dietary intake. The FLABEL workflow followed closely this framework. The first research helped us to understand the context in which consumer decision-making operates in Europe by looking at nutrition labelling incidents, penetration and typology. Then different studies dealt with consumers' reaction to nutrition labels by investigating whether

labels raise attention and are being read, whether consumers like them, understand them and are able to make the right health inferences from them; this was followed by investigation on how consumers used nutrition labels in a store environment and which effect the nutrition label has on the overall dietary patterns. Finally, these comprehensive insights are being used to derive implications for different stakeholders. Now I am pleased to leave the floor to Professor Klaus Grunert who will share with you the main findings.

04:04	Prof. Klaus Grunert	Thank you, Laura, and it is my pleasure to give you an overview of the major results that we have achieved in the FLABEL project. The first part of the work, as she said, dealt with creating a benchmark by finding out to which extent is nutrition information already available on food product labels in Europe and which type of labels can we distinguish. And in order to investigate this we did an audit of products in all 27 EU countries plus Turkey with regard to 5 product categories – sweet biscuits, breakfast cereals, ready meals, carbonated soft drinks and yogurts. And in each country we selected retailers, one of which was among the top 5 retailers in that country, a consumer co-operative or a national retailer, and a discounter. And in each of these 3 retail shops we did a complete audit of all products that were on the shelves with regard to these 5 product categories. In this diagram here you can see the share of products among those audited that indeed had nutrition information on the label. As you can clearly see, the large majority of the products had nutrition information at least somewhere on the product label. On average, 85% of the products investigated had nutrition information on the back of the package, ranging from 97% in Ireland and the UK down to 70% in Slovenia, still pretty high. So we can conclude that the majority of the products, at least among the over 37,000 products that we audited, did indeed have nutrition information on them. We can also conclude that the most widespread information was a nutrition table that is usually found on the back of the pack. If you look at the information that is available front-of-pack, the two types of information that were most widely available were a guideline daily amounts on about 25% of the products and nutrition claims, also on about 25% of the products. However we had this kind of information in many variations; there were different variations of GDAs, there were also traffic lights, there were health logos, there were a range of different types of nutrition information available on these products and we also, to guide our further work on the project, we wanted to derive a typology of nutrition labels. And to this end we conducted a qualitative study in 4 countries in the UK, Poland, Turkey and France, where people got 22 different nutrition labels on cards and had to sort them, both in a free and in a structured way and then we analysed their sorting process. And you can here see a few examples of the label examples that people were shown. You can see here a GDA label, a colour-coded GDA label, 3 examples of health logos, a nutrition claim, and down the middle you can see a French version of a traffic light label. When we analyse the way in which people sorted these labels we found that there were 2

dimensions on which people were distinguishing between the labels. One was what we call directiveness – that means the extent to which the label actually tells you what you should or should not eat or what is or is not healthy. The other dimension was the information content, to which extent people perceive that the label is complete with regard to the information it gives to the consumer. And we found that these 2 dimensions go together, they are correlated; that means those labels that tell directly which product is the healthier one has less information content, and those that have a lot of information content were less explicit in giving guidance on which products actually are healthiest. On that basis then we distinguished 3 categories; Directive, Semi-directive and Non-Directive. Directive labels are mainly health logos. Health logos tell directly that this product which bears the logo is the healthy alternative in that category and therefore has a high degree of directiveness, at the same time it does not include any detailed information like nutrient-based information. Semi-directive labels are those that contain nutrient-based information and therefore have a higher information content and also provide some degree of directiveness mainly at the level of the nutrient, although not at the overall product level, and traffic light labels are the most prominent example of that. And then we have Non-Directive labels, they contain nutrient-based information, therefore again have a high level of information but they are non-directive in the sense that they leave it up to the consumer to make inferences about which product is healthier than another, and GDA labels are the most well-known example of that.

In the second part of the work led by Wageningen University in the Netherlands then we dealt with factors related to attention and reading of labels. Our aim here was to find out what has an influence on whether people actually do pay attention to a label if it appears on a product and then also whether that carries through to healthier choices. And we were interested in two types of factors here. One was related to the goal that people have with their behaviour; we believe that it makes a difference whether people want to select a product that they like most or whether they want to select a product that is the healthiest. And the other factor, the other group of factors, have to do with the context and that is the label itself, the format of the label, but also the degree of familiarity that the label has for the consumers and what else is on the package in addition to the nutrition label, and here we look specifically at the information density – that means how much other information is on the label.

We used a range of methods to investigate these factors. We had some studies where we tried to find out what has an influence on whether people actually can find out whether there is a nutrition label or a specific nutrition label on the package or not. We did some eye tracking studies that allow us to find out where exactly on a package do people's eyes wander, and in that sense also to find out whether people do indeed look at the nutrition label as part of the package or not. We did some experimental choice tasks where people had to select a product. And then we also had a number of

measures that we usually call self-report measures where people, after having performed a certain task, are asked "Did you pay attention to this?" "Do you remember this label?" "Have you found that label helpful?" That was mainly included as a benchmark because that is what most of the other research in the area has been using. Some major results that we achieved here is, first of all, the goal that people have, whether the goal is to select a product that they like most or the product that is the healthiest, has a big influence, attention to the nutrition label is higher, if people have a health goal maybe not surprising. Some features of the label increase the likelihood of attention; bigger labels, labels to which people are familiar, the use of colour – or rather the lack of colour because a monochrome label leads to more attention, and consistency in the location of the nutrition label on the package. Also, the information density on the package had an effect in the sense that if the rest of the package contained a lot of other information then the nutrition label attracted less attention. We looked, as I said, on effects on the healthfulness of the choice coming out after people had looked at the label. We found out that the different types of label format that we investigated here – Semi-directive, Non-Directive, Directive system – all performed well, but that we found that the Directive systems - that means the health logo type of systems – performed better in a situation of time pressure; that means where people had to make a choice under a time constraint. We also found that familiarity with the label had an effect, but mostly on whether people recognised the label and how they evaluated the label but not so much on the effect of the label on product choice.

So the major conclusions from this part of the work here are that attention and reading is dependent on motivation. If people have a health motive with their choice, they pay more attention to labels and it also makes a difference whether the health motive is specific or general, if people just do not want to buy the most healthful choice but, for example, the product that has the lowest salt content, that of course means they pay more attention to labels giving that information. Attention is a necessary but insufficient condition for labels to have an effect on consumer choices. Actually we believe that attention may be a major bottleneck that has been under-researched in previous studies which is one of the reasons why we had it as part of the FLABEL project. Attention can be facilitated by design factors of the label itself but also by the way the label is integrated into the overall package design and also by the way the choice context is created at the point of purchase. We found that the use of different methodologies that we have employed here in this part of the work was very useful, that we got beyond the use of only self-reported behaviour where we asked people to reflect on what has determined their choice because we found out that the observational data that we have here differ from what people believe that actually had an impact on their choice. We also found differences between countries, but these differences were more related to people's account of their own behaviour, that means their self-reported behaviour than the actual behaviour that

we observed in the experiments.

The next part of the study then dealt with liking and attractiveness of labels led by the Agricultural University of Athens. We are of course also here interested in which type of label format people like most. We are also interested again whether it depends perhaps on the type of product or on consumer characteristics. Finally, we had based on previous research derived a number of dimensions, the completeness, the complexity, the coerciveness of the label that we believe may have an impact on how much people like the label.

The major study that we have carried out in this part of the project was a survey in 4 countries, in the UK, Poland, Turkey and Germany with 500 subjects per country, that means 2000 altogether, all of which were at least partly responsible for food shopping in their household and we compared 5 labelling systems and we used different products as a context and also in the examples we gave to people varied the levels of healthfulness of these products. In these charts here you see which of the labels that we showed people people recognised, labels that people said they were aware of and we can see the percentage of people liking that particular label most. And the labels that we compared here was the baseline label which only gave the nutrient-based information in grams and the energy in calories, and then we had the GDA label, a traffic light label, a hybrid combining the two and a health logo. And these graphs here show two things; first of all you can see that the degree of awareness of a label format and the preference for that label format are related, that means people have a tendency to like those labels more that they have seen before, what we could call a familiarity effect. But more importantly you can see that the peak of the red curve is the same in all 4 graphs here, that means that the label that is liked by most people is always the hybrid label, the label that combines the GDA information with the traffic light colours and therefore also the label that has most information and is the most complex label.

On this other chart here, you see the evaluation of the 5 different label formats on a number of dimensions; effectiveness, efficiency, simplicity and coerciveness, and as you can see the major message here is that the labels don't really differ in the way in which people evaluate them on these 4 dimensions.

So the major conclusions from this part of the project was that liking seems to increase with information content and complexity, the GDA traffic light hybrid system scored highest in the various measures of liking that we had in this part of the project. However, in spite of these differences in liking, if you asked people to evaluate the labels in a number of dimensions like effectiveness, efficiency, then we found very small differences between the label formats. We also saw that awareness and preference are related; that means those labels that people have seen before that they are used to in their particular market also have a tendency to be more preferred. So the bottom line is that labels with the highest amount of information and complexity are liked most and that liking depends on previous exposure.

We then proceed to the part of the project dealing with

understanding and health inferences from labels. What we are interested in here is whether people make the correct inferences from the label content on the healthfulness of the product. In order to do this of course we need an objective benchmark for healthfulness and the one that we use here is the so-called SSAg/1 index, which was useful for this purpose because it is based on the same information that is available on the typical nutrient-based label. And again we were interested mostly in whether the label format makes a difference with regard to the correctness of the health inferences and then whether this is affected by the type of product and by consumer characteristics.

The major study that we carried out on understanding and health inferences was again a survey; actually it was the same survey as the one I have just described with 2000 respondents in 4 countries. In the same survey we also tested understanding and health inferences of some label formats. And the way we did that was that we for 3 different product categories – pizza, yogurts and biscuits – showed people first 3 products that differed in levels of healthfulness and gave them only the basic information in terms of nutrients in grams and energy in calories and asked the respondents to rate the healthfulness of these 3 products and then we could compare these rating with the objective health indicator as measured by the SSAg/1. Then we gave people additional information; namely, we showed people one of the formats shown here which in addition to the basic information in grams and calories contained either the traffic light information or the health logo or both the traffic light information and the GDAs or the one at the bottom, the GDAs only. So we could investigate the provision of traffic lights, health logos, GDAs, or the combination of GDAs and traffic lights, increases the correctness of the healthfulness evaluation of respondents.

And here we can see the main results of that study here. What we see on the vertical axis is the difference between people's evaluation of the healthfulness and the objective evaluation of the healthfulness; that means if people are completely correct in terms of the SSAg/1 index then they will have a score of zero here. Well you can see that people are not completely correct, people differ from the SSAg/1 and the evaluation of the healthfulness even though we must say if we don't look at the absolute level but only at the ranking of the 3 products then most people could rank the 3 products correctly in terms of healthfulness even if they were given only the basic information where the nutrients were in grams and the energy was in calories. But as we can see here, the provision of additional front of pack label information in terms of GDAs, traffic lights or a health logo had a slight but positive effect on the correctness of the health inferences; that means that the additional information did increase the correctness of the health inferences even though, as you can also see in this diagram here, the effects were very small.

We also investigated of course whether there were differences between the label formats; since the overall effect was so small, we could not expect that there would be any major differences due to a

particular label format but there was a slight tendency that use of colours had an additional effect on the correctness of the health inferences.

We also did another study here, a food sorting study, a qualitative study, and in this study people were given 11 different snack food products and were asked to rank them according to healthfulness. And this study is different from most of the other work that we've been doing in the FLABEL project in that we here include products from different product categories even though they were all snack products. But as you can see on the list here - banana chips, chocolate sugar-coated peanuts, raisins and so on, we had a range of different products so we wanted to investigate people's ability to evaluate healthfulness not within a product category but across a range of product categories. And, as I said, it is a qualitative study and we did it with 2 specific target groups; we had a group of people with a low interest in healthy eating and we had a group of people who were type-2 diabetics, so these were people with a high interest in healthy eating. However, as you can see here for both groups you see some interesting systematic differences in the evaluation of the healthfulness of the different product categories, where some are systematically overrated, like banana chips, and some are systematically underrated in terms of the healthfulness, like chocolate-flavoured milk. And I will come back to in a moment on how the labels affected the healthfulness ratings.

Coming first back to the survey results, the major conclusion from the survey was that front of pack labelling systems can result in improvements to objective understanding of nutrition information but that the effects actually are very small. There were small differences and improvements between the various formats with different levels of directiveness compared to a format where we only give the nutrients in grams and the energy in calories. So the major conclusion really from this part of the study is that nutrition information regardless of the format is sufficient to enable consumers to detect the more healthful alternative, at least if you compare products within a product category.

The other study – the food sorting study, the qualitative study – showed that if we asked people to evaluate healthfulness across a range of products in the absence of front-of-pack labels people use other indicators for healthfulness that can lead to erroneous inferences; like in the banana chips example where people, because it is a fruit, think it must be healthy and therefore overrate the healthfulness of the product. If you provide people then with front-of-pack labelling information this leads to a more deliberative approach and therefore also can increase the correctness of the health inferences. We found here that in those cases where people's healthfulness was grossly deviant from the objective health indicator the use of colour coding at a nutrient level seems to have an effect in trying to help people come over these erroneous evaluations of the healthfulness of the product.

After having done these parts of the project here, where we have done studies on attention and reading, liking and attractiveness and understanding and health inferences, we then sat back and tried to

formulate some working hypothesis based on the results that we have achieved that would guide the further work in the FLABEL project.

And these are the 2 hypotheses that we have come up with. The first hypothesis basically says that it seems that the exact format of front of pack labelling does not seem to have a major impact on especially the understanding of the nutrition information. So we believe that the provision of information on energy and key nutrients just in calories and grams by itself, if it's done in a consistent way on the front of the package, will improve attention and understanding and facilitate healthy choices. And we believe that the addition of a health logo would be a useful thing as well because we saw that the use of a health logo is especially good in facilitating healthy choices in a situation of time pressure, which is typical of the way in which food is normally being purchased.

So we developed what we call an ideal baseline label format, which you can see here, which provides information on nutrients on a per gram basis and the energy in calories in a standardised format that would be provided in the same way on all products, supplemented by a health logo which either is present or not present but in such a way that you'll also clearly see when the health logo is not present. And we hypothesised the consistent use of such a label here will improve attention and understanding and facilitate healthy choices. And this is something we wanted to investigate in the remainder of the project.

We then also had a hypothesis on the additional elements that one could add to such a label; that means the use of GDAs, colour-coding or the provision of text low, medium, high; our hypothesis is that this will not increase attention and will not result in major improvements in understanding but it will have an impact on consumer liking and it may also have an impact on healthy choices even though that impact would not be based on a better understanding or on more attention but on other factors.

On this basis, and guided by these 2 hypotheses, then we did additional studies especially on the in-store use of labels and this part of the project was led by the University of the Saarland in Germany. We wanted to see here whether the use of this new label format as compared to existing labels and perhaps the use of additional elements in addition to this ideal baseline nutrition label has an effect on attention and on choices. We also investigated arousal, although I will not come in on that part of the study. What we did was that we put people into an almost real store environment. It was test store, a part of which you can see here, owned by a retailer and this here is the German store; we had similar set-ups in some other countries where we did the same type of study, and people were sent into the test store with a shopping list and they had an eye tracking device, as you can see here, wearing a cap which allowed us to see exactly which packages and which parts of the labels of packages people were actually looking at during their shopping trip, and that provided the first major set of results, what is the amount of attention that people give to various parts of the label and especially of course to the nutrition label.

And then of course we recorded the choices that people were actually making and were comparing their choices again to the healthfulness of the different alternatives as measured by the SSAg/1.

Here we see a major result on the attention that people give to various parts of the package. This here is for the choice of cereals, but the results for the other products were similar. Because of the mobile eye tracking device we can see which parts of the package people look at and we can see for how long people look at the various parts of the package. First of all, we see that the average length by which people look at a particular package is not very long, it's about 1 second. Secondly, we see here that those parts of the package that are attended most are the name of the product and the picture that is on the package, and we can see that the nutrition label accounts for a very small part of the attention that people give to the package, on average 0.02 seconds, and only 10% of the people actually look at the nutrition label at all.

These results here were for the nutrition labels that were on the packages before we introduced the ideal baseline label. So this provides a benchmark against which we want to compare the results that we can achieve by introducing in a consistent way the label that we have developed.

And here we can see the differences between the existing labels which were different kinds of labels on these products and the consistent use of the ideal baseline label on all products that were on the shelf.

And here we can see the effects on attention-getting measured by 3 indicators; how many of the people in the shop did look at the nutrition label at all, how many of these labels did people look at and how long on average did they look at these labels. And if you look at the figures we can see that, with one exception, all of the indicators go up; that means that the introduction of the ideal baseline label indeed increases attention and that for most of the differences they are all statistically significant. So the good news is that actually the introduction of the ideal baseline label indeed increases attention even though if you look at the absolute level of the figures here we have to conclude that the amount of attention given to the nutrition labels is still small.

We then asked, relating to the second of our working hypothesis, what happens if we add other elements to the baseline label? Other elements here are the use of GDA information, the use of text low, medium, high with regard to nutrients, use of colours – in addition to the traffic light colours we also used a new shading system or a combination of these in terms of hybrid labels. And we did this study here in two countries; in Germany and Poland as the whole test. And the major result of this study was that none of these elements improves the healthfulness of the choice, which again was measured by correspondence with the SSAg/1, and again we had two types of tasks here – preference tasks where we asked people "Please choose the products that you like most, that's the one that you would buy if you were about to shop for this product" and we had a health task "Please select the product that is

the healthiest". However, we found another interesting result and that is related to the fact that this task here was in two steps; we first gave people 10 products to choose between, for example, in the salty snacks category, and asked them to choose the product they liked most or to choose a product that's healthiest. Then we added 10 more products that were on average all healthier than the first 10 products and asked people to do the same thing again "Please select the product that is healthiest or the product that you prefer". And what you can see in this table here is the average SSAg/1 for the whole set of products between which people could choose and the average SSAg/1 of the product that people did in fact choose. And the higher the value, the less healthful is the product and what we can see here if we add the 10 healthier products to the set of products people should choose between, the average level of healthiness of the chosen product of course falls, but it falls more than would be due to just the statistical chance by adding more healthier products to the choice set. So what's happening here is that adding healthier products to the choice set seems to alert people for the healthiness of or the different options of healthiness in terms of the choice set and has a positive influence on the healthiness of the choices. And the interpretation of this is that the products available on the shelf, the range of healthfulness of the products available on the shelf seem to be an important determinant of the healthfulness of the choices actually made.

So the conclusions from this part of the project was that the ideal baseline label, that means the consistent provision of gram-based nutrient information and energy in calories supplemented by a health logo increases visual attention in terms of both the number of consumers looking at labels, the number of labels and the number of labels looked at and this effect is strongest if actually all products, 100% of the products on the shelf, carry that label. We also find that the share of attention towards the nutrition label compared to other elements of the food product label increases even though that effect is significant only if indeed all products, 100% penetration, carry the label.

However, we also found that the attention given to labels, as measured by gaze duration and how many of the respondents look at labels, are low and they are lower compared to the laboratory studies that we've done also as part of the project, and they are too low for extensive processing of the information. Given that we are talking here about attention in terms of milliseconds, it's limited to what the degree, the depth, of information processing that people can engage in. We looked at whether the introduction of the label has an effect on the choices made, as measured by correspondence with the SSAg/1. We found that these effects were significant only for some people, and they were significant for those people who had low scores on a self-control measure. That we use self-control, that has something to do with people's ability to resist temptations. That can be measured by the psychological scale, which we did, and we found that the ideal baseline label does serve consumers with low self-control to make more healthful

choices.

As already mentioned, the addition of other information – GDAs or traffic lights – to the label neither increases visual attention nor promotes more healthful choices. However, we found in one particular small task that I have not described in detail, the take-home choice task, that there was an interaction of the health logo and the presence of traffic light coding which did seem to have an effect on more healthful choices adding to these other weak indicators about the effect of colour in nutrition labelling. We did also find, as I said, that extending the product set with more healthful products can improve healthfulness of product choice considerably.

We then finally had a part of the study where we wanted to look at the effects of labels on dietary intake led by the Georg-August Universität in Göttingen in Germany, and this part of the project was based on the analysis of scanner data that was made available by our project partner, Tesco. And the type of data we get here results from combining different types of databases. The core is the transaction based data that are generated whenever somebody checks out in a Tesco store and swipes his or her clubcard because then we have information on what is being bought, where it is bought and which quantity, at which price. And because people have swiped their clubcard we can relate it to information on the buyer; that means the household, where they come from, their gender and we have some other information on them, so that we can relate it to household segments and we can also relate the information to a product database so we know about the products that were bought, some of their characteristics including nutritional properties.

We did a range of statistical analyses with these data here and what you see here is an example of the time series analysis, where we, for a range of several years, monitored the sales of a particular product category – in this case natural yogurts – and we also have here as a solid line the price of the product and then you see a vertical line here in the middle "December 2005", that was a time where Tesco introduced GDA labels on that particular product category. And since natural yogurts are one of the healthier alternatives within the yogurt category, we would expect that the sales of natural yogurts could increase because of the introduction of the GDA label. As you can see here, that did not happen and one of the reasons why that did not happen, as you can see here, is that at the time of the label introduction at the same time there was also a price increase for that particular product so what did happen in fact was the opposite, namely that the sales fell.

We did a range of other statistical analysis with these data here – of course you can control for the price effect and then look for the effect of the label – and tested a range of hypotheses about how the GDA label would affect sales if it indeed was being helpful to consumers in making healthier choices. However, we found no systematic effects of the introduction of the label. The time series analysis failed to reveal apparent short-term effects of GDA labelling on sales and, as I said, in some of these samples price

increases that have been done at the same time when the label was introduced may mask the introduction of potential short-term effects of the labelling on sales, but products without price changes and also other, and then as I said we have done controlling for price changes, show no clear relationship between changes in sales and the GDA label introduction. And it's not too surprising perhaps because there have been other studies using scanner data that have come to the same conclusion, namely that for this type of data we cannot show effects of label introduction on people's choices.

That then completes the overview of the major results and we come to some overall conclusions. This here again is a version of the conceptual model that was guiding the project. It is a somewhat simplified version here where we look at the effects of label availability on label use in making healthier choices depending on attention, liking and understanding, and then as external factors on consumer motivation on the one side and label format on the other side and these different constructs here in this simplified framework correspond to the major constructs, major groups of variables that we've been working with in this project. And we convert this simplified model into an analysis of potential bottlenecks. If labels do not have an effect or have not enough effect on healthier choices of consumers, what is the reason for that? Is it because there is no or not enough label availability? Is it because of lack of attention to labels? Is it because consumers don't like front-of-pack labels? Is it because consumers don't understand front-of-pack labels? Is it because they're not motivated to use them or make healthy choices? Or is it because there's the wrong label format on food products?

If you then go through these boxes one by one and relate them to the results that I have presented in this webinar here, the first question is "Is lack of availability of nutrition information on food products a bottleneck?" Well, yes and no. No, because we have shown that across Europe most products do carry nutrition information. I have shown you that 85% of the 37,000 products monitored had nutrition information at least on the back of the pack and 48% had nutrition information on the front of the pack. However, we have also shown in this project here that consistent front-of-pack information with a 100% penetration would help. So in that sense availability of nutrition information is to some extent still a bottleneck.

"Is lack of attention a bottleneck?" The answer is yes. We have shown that attention is a major bottleneck with regard to the effects of nutrition labels on choice behaviour. Average attention to nutrition labels is very short, most people don't pay attention at all, and if they pay attention it's for very, very short time spans. Attention is related mostly to motivation, more so than to the label format, even though we could show that the introduction of what we call the ideal baseline label did increase attention for the nutrition information.

"Is lack of liking by consumers of nutrition information on food packages a bottleneck?" No. Our study, our project and other

studies that are around have shown many times that consumers like the idea of front-of-pack nutrition labelling. If you look at liking for different label formats, we found in this project here that consumers like the most complex labels just like the colour-coded GDA most. However, it seems that liking and intended or imagined use, are not correlated with actual use and impact on choices.

"Is lack of understanding of the nutrition information a bottleneck?" We think the answer is no. We have shown - and again this is consistent with other research that has been done – we have shown that consumers have no problems ordering products according to healthiness when they're given basic nutrition information no matter in which format people receive it. Variations in label format have only small or sometimes no effects.

"Is lack of motivation a bottleneck?" The answer is yes. We have shown that whether people choose by preference or whether people were asked to choose by healthiness, it makes a big difference. People are not always motivated to choose mainly based on healthiness and that of course is because there are many other considerations apart from health when making food choices. People buy by habit, people buy under time constraint, people buy based on family liking, based on tastes and a lot of other things. Selecting according to preferences is only partly determined by health considerations. But we could show that for those people with low self-control, the consistent provision of nutrition information on front-of-pack labels or baseline ideal label had at least some effect on increasing the healthfulness of the choices.

"Is the wrong label format a bottleneck?" Well, again, yes and no. We showed that providing consistent information which combines food nutrient level information in a directive and non-directive way, the gram calorie based information combined with health logo can improve attention, so there is room for improvement. The health logo we have shown can help, especially in situations of time pressure. Additional elements – GDAs, additional text, traffic light colours – on the other hand has little or no effect even though we had some bits and pieces here and there and the use of colour can have effects under certain circumstances, especially perhaps regarded to the comparative evaluation of healthiness across product categories, but these effects were weak and were not very certain.

So if we come back to the framework and want to pinpoint the major bottlenecks, the major bottlenecks are lack of attention, lack of motivation and the label format can do something about that by providing more consistency whereas the exact format in terms of how the nutrition information is given seems to be less important.

We also found, more or less by accident because that was not part of the plan of the study that the availability of healthy alternatives on the shelf seems to have a major effect on the healthiness of the choices.

We've discussed all these results with stakeholders at a consensus workshop that took place in November 2011. We were discussing whether there are certain conclusions that we agree on. We are in the process of providing a consensus document which has not yet

been approved by all the participants, but I can tell you that the tentative conclusions that were being discussed at the meeting were four. First of all, there was widespread agreement that the results show that we need to see nutrition labelling in a broader context. That is mainly related to the motivation issue – motivation is a major bottleneck and nutrition labelling by itself cannot provide more information or at least there are limits to what can be done. Motivation for healthier eating has to be addressed by other means and therefore nutrition labelling needs to be viewed in a broader context. Secondly, broad penetration of front-of-pack nutrition information is desirable. That is related to the results on consistency in 100% penetration. And our ideal baseline label, of course, was the centre of the discussion and as you have seen it includes nutrient-based information supplemented by a health logo even though there were different views on the relative importance of these two elements. There was, on the other hand, widespread agreement that consistency and familiarity are more important than the adoption of any particular format. And personally I think that the results of the FLABEL project, among other things, also have shown that maybe we have concentrated in the past too much on details of the format and not enough on other factors that affect the use of the information, like the motivation and the attention-getting properties. One other aspect was mentioned that was not part of the research, but that was emphasised as very important, namely that nutrition labelling, in addition to the effects it has on consumers has an important function as an incentive of product reformulation and product innovation leading to healthier products, and this is especially also a relevant conclusion in the light of our results that the healthfulness of the choice of products on the shelves has a major effect on the healthfulness of the choices that people make. And this concludes my presentation of the results. Thank you very much for your attention and back to Laura.

50:42	Dr. Laura Fernadez Celemin	Thank you very much Klaus. Before closing the webinar we would like to acknowledge the 7th framework programme for research of the European Commission for providing the grant that made the FLABEL project possible, all the FLABEL research teams and partners for their hard work and enthusiasm, other organisations outside the FLABEL Consortium who helped carry out the work and last but not least the FLABEL Stakeholder Advisory Board for their constructive and useful input throughout the project. For more information, please look on the FLABEL Project website www.flabel.org and even though the project is ending at the end of January 2012 we will keep updating it with information on published FLABEL scientific papers. If you have any queries, do not hesitate to contact us via email. Thank you very much.